

CLAIMS:

1. A holographic recording and reproducing method for recording
holographic data in and reproducing holographic data from a holographic
5 recording medium comprising a recording layer in which data are to be
recorded as phase information of light by projecting a signal beam and a
reference beam thereonto and an optical modulation pattern periodically
formed in a direction of a track on a surface located on the opposite side of
the recording layer as viewed in the direction of signal beam and reference
10 beam incidence on the holographic recording medium, the holographic
recording and reproducing method comprising a step of projecting a light
beam for servo control onto the holographic recording medium so as to
substantially focus onto the surface on which the optical modulation
pattern is formed, thereby generating clock signals in synchronism with
15 the optical modulation pattern.
2. A holographic recording and reproducing method in accordance
with Claim 1, wherein the spot diameter of the light beam on the surface
on which the optical modulation pattern is formed is smaller than a period
20 of the optical modulation pattern.
3. A holographic recording method for recording holographic data in a
holographic recording medium comprising a recording layer in which data
are to be recorded as phase information of light by projecting a signal beam
25 and a reference beam thereonto and an optical modulation pattern
periodically formed in a direction of a track on a surface located on the
opposite side of the recording layer as viewed in the direction of signal

beam and reference beam incidence on the holographic recording medium,
the holographic recording method comprising steps of sequentially
recording phase information along the track and shifting a record position
along the track every integer multiple of the period of the optical
5 modulation pattern.

4. A holographic reproducing method for reproducing holographic data
from a holographic recording medium comprising a recording layer in
which data are to be recorded as phase information of light by projecting a
10 signal beam and a reference beam thereonto and an optical modulation
pattern periodically formed in a direction of a track on a surface located on
the opposite side of the recording layer as viewed in the direction of signal
beam and reference beam incidence on the holographic recording medium,
the holographic reproducing method comprising steps of projecting a
15 reference beam onto the holographic recording medium, reproducing an
image recorded in the holographic recording medium and removing noise
components due to the optical modulation pattern from the thus
reproduced image.

20 5. A holographic reproducing method for reproducing holographic data
from a holographic recording medium in accordance with Claim 4, wherein
the noise components are removed by recording a predetermined test
pattern in the holographic recording medium as the phase information,
reproducing the test pattern to obtain noise information and calculating a
25 difference between the noise information and the reproduced image.

6. A holographic recording medium comprising a recording layer in

which data are to be recorded as phase information of light by projecting a signal beam and a reference beam thereonto and an optical modulation pattern periodically formed in a direction of a track on a surface located on the opposite side of the recording layer as viewed in the direction of signal
5 beam and reference beam incidence on the holographic recording medium.

7. A holographic recording medium in according with Claim 6, wherein the optical modulation pattern is constituted as a concavo-convex pattern.

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